IN THE SPECIFICATION:

Please amend the paragraph beginning at page 3, line 5, as follows:

The most similar solution of the vertically placed, load-bearing wall-panel I know was disclosed by U.S. Patent No. ~~1,669,240~~ 4,669,240 written by inventor Giuseppe Amormino. The disclosed patent provides an idea for a load-bearing, sandwich wall-panel which generally suits well the purpose of constructing buildings. But still, the panel contains several weak points which may seriously limit its range of applicability for constructing real large span buildings, as follows. The arrangement of wire mesh reinforcement placed in the middle of the cross-section of each thin concrete layer makes them too flexible. Since the real distribution of axial forces along the panel height is rather eccentric than centric, layers are often subjected to some unavoidable local bending. The reinforcement placed in the middle of the cross section is therefore unsuitable. The present invention introduces a new arrangement of two interspaced layers of mesh reinforcement placed closely to concrete surfaces as will be disclosed. In that way both the panel concrete are significantly strengthened.

Please amend the paragraph beginning at page 3, line 19, as follows:

The steel rod trusses used in above mentioned application as shear connectors to connect concrete layers, ensuring composite action of the panel, might be not satisfactory rigid for use in higher, slender panels. In such a case there have to be provided many of them. Using of too many trusses requires using of too many smaller pieces of

insulating strips, requiring also much more welding, making in that way manufacturing process of the same more time consuming. For that reason, in the present invention the truss connectors are replaced by les pieces of more rigid steel webs which are much stronger, continuously anchored to both the concrete layers. In the same patent, the floor support formed of inner concrete layer being thickened at its top to provide a sufficient bearing surface is awkwardly made for it causes eccentricity. Vertical load, of a great amount is thereby transmitted ~~trough~~ through such a support causes unnecessary local bending moments, causing permanent stresses in panel elements. Moreover, in such a way the roof/floor is practically supported by one thin inner concrete layer only, having reinforcement placed in the middle. Such load concentrations require more serious supports than presented one. Further deficiency relates to manufacturing of the panel, particularly to the method how the bottom of the mould for the upper concrete layer is temporary fixed to trusses as well as the queer of using a "suitable resin" for bonding fiberglass strips interposed between adjacent pairs of trusses. Final step of filling the "grout or insulation material" into spacing between adjacent insulation strips may be unacceptably time consuming work to do for a quick production. The present invention introduces more efficient way of making panels.

Please amend the paragraph beginning at page 13, line 24, as follows:

a) The composite wall-panel (1) shown by a cross section view in Fig. 1, by fragmentary longitudinal section in Fig. 2 and as a part of

building in Fig. 4, comprises a cast concrete inner (2) and outer layer (3), both about 70 mm thick. The concrete elements are interconnected by at least two galvanized steel sheet strips (4) interposed into a gap between them. Both concrete panel elements (2) and (3) are substantially reinforced by two steel wire mesh layers (5). There's rather enough of free space between the two steel mesh layers in each concrete layer, across the width of the panel, whereto additional longitudinal reinforcing bars (6) can be placed, used for strengthening the panel, if necessary. Reinforcing bars can be replaced by pre-stressing wire-strands (completely or partially) dependably of the desired degree of prestressing. However, it is an ideal position for reinforcing bars (or pre-stressing wire-strands) to be embedded strongly both-side confined by two layers of meshes. The 4–7 mm thick steel-sheet-strips (4) are embedded into both inner and outer concrete layers being anchored thereto by series of triangle-shaped steel loops (7) with short steel rod anchors (8) being pooled through holes (9) as illustrated in Figs. 1, 2 and 3. Steel rod anchors ~~(4)~~ (8) both-side projecting from loops (7) are placed exactly between the two mesh layers (5) of each cast-concrete panel elements (2) and (3), keeping in that way the constant distance between the two steel meshes layers. The short steel rod anchors (8) being properly anchored to concrete serve simultaneously as strong connectors. The insulation layer (10) fills only partially the gap between the two concrete panel elements (2) and (3), adhering to the inner side of the inner concrete layer (2) of the wall panel. The unfilled remainder of the gap provides an air zone (11) serving to ventilate the insulation. The overall depth of the wall-panel (1) as well as a relation between

the depth of air space (11) and the depth of insulation (10) is arbitrary, dependably on the local climate requirements and is easy adaptable by changing the insulation thickness within the manufacturing process.

Please amend the paragraph beginning at page 14, line 18, as follows:

The upper part of the inner panel layer ~~(3)~~ (2), being shorter than outer one (3) as shown in Figs. 4 and 6, defines the support level for roof-ceiling elements (13), supported by the panel. Thus, the top end portion (3.1) of the outer panel element (3) extends upwards beyond the support hiding the roof construction (13) from being visible from outside. The top support is formed of a small-size steel tube (14) anchored laterally into both concrete layers (2) and (3) thickened near support, through several steel loops (15) projecting laterally outwards by long rod anchors ~~(16)~~, in the similar manner as webs were anchored. Both panel concrete layers (2) and (3) are thickened near the support for accommodating lateral loops (15) of the tube (14), at a necessary length, needed to transfer reactions of leaned roof elements (13), gradually from the tube (14) to both the concrete layers, avoiding thereby stress concentration. The tube (14) is also welded to both webs (4) by welds (17) for the same reason. The steel tube (14), being a direct support itself, projects slightly upwards over the top of surrounding concrete ensuring in that way the roof-ceiling elements (13) to be leaned exactly against it. Through the tube (14), the wall-panel is loaded centrically, with both concrete layers being compressed equally when lateral forces are absent. The present wall-panel (1) is initially (during assembly) mounted and rigidly connected

to the precast foundation elements (18) as a cantilever, as shown in Figs 4 and 8. The lower portion (19) of the wall-panel is made as a full solid concrete without insulation, being adapted for placing under the ground level and supplied by small steel plate inserts (20) for fixing on a foundation. The wall panel is fixed on longitudinal strip foundation precast elements (18) through a couple of incorporated steel plates (20) near its lower end, laterally at both sides. Similar steel plates (21) are incorporated at predetermined points along the bottom of the shallow socket (22) of the strip foundation elements (18). When erected, the wall-panel (1) stands uprightly leaned against the foundation bottom being firstly adjusted to a perfect vertical position in any usual manner. The steel plates (20) and (21) are then interconnected by triangularly shaped steel plates (23) positioned perpendicularly to them, welded by welds (24) and (25) respectively, as seen from Figs. 4 and 8. In an another embodiment, the steel plates can comprise special details projecting at both sides of the panel which are intended to be slipped with their holes upon bolts vertically projecting upwards from the top of the foundation channel bottom being fixed there by nuts. The footing is below the ground at a predetermined depth. The full concrete solid section of the panel near its lower end is applied over length from its bottom in socket (22) up to the upper level of the concrete ground plate (26) poured in situ, that is usually over the ground surface level (27) as visible in Figs. 4 and 8. The wall-panel (1) is horizontally attached to the massive concrete ground plate (26) by lateral anchors (28).

Please amend the paragraph beginning at page 16, line 9, as follows:

Ends of steel webs are utilized to form a rigid connection between the wall panel and the floor unit, as illustrated in Fig. 7. The inner concrete panel element (2) of the wall panel has an interrupt at the support, forming the longitudinal grove (38) for inserting floor elements. The wall-panel (1) comprises a support inside of the horizontal grove (38) at a predetermined level of the floor. The steel tube (39) is used (anchored in the same manner as the tube (14) at the roof support) to assure centrically positioned floor load upon the support. Vertical steel webs of the wall panel (4) passing continuously, without being interrupted, right angularly through the grove (38). The mounted, floor units (29), are leaned against the tube ~~(29)~~ (39) through lower concrete layers (31) having two slots ~~(39)~~ coinciding with and fitting tightly to webs (4) of the wall-panel, as shown in Fig. 7. The vertical steel webs (4) of the wall-panel (1), passing through the horizontal groove (38) strengthen thereby temporarily weakened cross-section of the panel at the groove. When adjusted, the steel webs (4) of the wall-panel and webs of the floor element (32) come overlapped and are easily connected by bolts with nuts (40). The proper access to manage this operation is provided between the wide opening of the groove (38) and shortened upper concrete layer (30) of the floor unit near the support during assembly, whereby, after bolts (40) were tightened, the gap is poured by concrete. The level of the final floor concrete layer (41), poured in site, over the top surface of the assembled floor unit is above the top level of the support grove (38) so finally the entire connection becomes hidden, as obvious from Fig. 4.

Please amend the paragraph beginning at page 18, line 27, as follows:

d) The simplest structure fragment is formed of two vertical wall-panels (1) of the present invention mounted and rigidly fixed into shallow longitudinal socket (22) of the strip foundation elements (18), supporting ~~a~~ roof-ceiling units (13) as known under the name "The double prestressed composite roof-ceiling constructions with flat soffit" according to the WO 02/053852 A1, as illustrated in Fig. 11. The two vertical wall-panels (1) were erected and rigidly connected to the longitudinal precast strip foundation in the manner as disclosed in part a). As obvious from Fig. 11, the pair of wall-panels (1) support one single roof-ceiling unit (13) having the exactly equal width as the width of the wall-panel. That is advantageous, because in such a manner perfect compatibility of their connection details is always ensured. Tolerances are thereby consequently decreased to a minimum so that bolts and other precise connecting means can be confidently used without fear of mistakes made by a human error. The roof unit (13) to wall-panel (1) connection is illustrated in Fig. 4 and Fig. 6. The slab-like support end of the floor unit (13) comprises two holes (49) each at one side near ends of the concrete soffit plate, made of incorporated, short steel pipe pieces. The ends of plates are leaned upon the steel tube (14) incorporated between two concrete layers being previously slipped with both holes upon the two bolts (50) extending upright from the top face of the tube (14) and fixed thereto by nuts.